

MATHEMATICS MAGAZINE

Index to Volume 31 September-October, 1957 - May-June, 1958

Articles by Title

A Correction and Generalization of Neustadt's Law - W. W. Funkenbusch . . .	159
A Determinant Formula for Higher Order Approximation of Roots - J. M. Wolfe	197
A Finite Sequence and a Card Trick - Ali R. Amir-Moéz	25
A Method for Finding the Real Roots of Cubic Equations by Using the Slide Rule - Louis L. Pennisi	211
A Note Concerning Homogeneous Polynomials - J. C. Morelock and N. C. Perry	75
A Note on Computation with Approximate Numbers - N. C. Perry and J. C. Morelock	155
A Number System With an Irrational Base - George Bergman	98
A Special Case of a Prime Number Theorem - R. Larivière	281
A Symbolic Method for Finding Integrals of Linear Difference and Differential-Difference Equations - K. L. Cooke	121
A Theorem Concerning the Bernstein Polynomials - H. W. Gould	259
Abstract Structure of Inequalities - A. B. Soble	179
An Analogue to Clifford's Chain - Katsurao Kobayashi	133
Angle of Inclination and Curvature - David Gans	31
Arithmetical Congruences with Practical Applications - Carol Law	221
Comment on the paper "Long Short Lines" - L. B. Robbins	158
Comment on the paper "Conic Sections" - Paul D. Thomas	157
Comment on the paper "On a Certain Problem in Mechanics" - Philip B. Jordain	158
Cartalgebra	254
Certain Non-factorable Polynomials - Doyne Holder	80
Combinatorial Derivations of Two Identities - Donald A. Steinberg	207
Critical Curves in Seismic Exploration - H. G. Helfenstein	85
Knocking a Cone Into a Cocked Hat - Daniel B. Lloyd	201
Linear Diophantine Equations - Arthur B. Brown	215
Mike Wallace Interviews George Bergman	282
Multiple Numbers - John A. Tierney and John Tyler	27
<i>n</i> -Groups with Identity Elements - Donald W. Robinson	255
Normal Curve Areas and Geometric Transformations - David Gans	205
Note on the Derivatives of the Legendre Polynomials - Gideon Peyser	210
Notes On Circular And Hyperbolic Functions - William S. McCulley	33
Numbers and Number Systems - L. A. Ringenberg	265
On a Characterization of Orthogonality - Waleed A. Al-Salam	41
On Natural Boundaries of a Generalized Lambert Series - Francis Regan and Charles Rust	45
On Popular Methods and Extant Problems in the Solution of Polynomial Equations - Donald Greenspan	239
On the Local Uniqueness Problem for Periodic Surface Waves of Permanent Type in a Channel of Infinite Depth - D. H. Hyers and J. A. Ferling	61
On the Polar Projection with Respect to Normal Curves - Masaru Inagaki	141
Orthogonal Tetrahedron - Sahib Ram Mandam	127
Principle of Induction and a Sequence of Generosities - A. R. Amir-Moéz	back of contents, Jan.-Feb.
Solution of Triangles on the Slide Rule - V. C. Harris	95
Solving Differential Equations Without Complex Numbers - Michael J. Pascual	93
Some Operational Methods in the Calculus of Finite Differences	

Joseph Talacko	15
Student Progress—Samuel S. Enser	154
Test for Divisibility by the Use of a Remainder Function—N. A. Draim ...	137
The Coefficients of $\frac{\cosh x}{\cos x}$ and a Note on Carlitz's Coefficients of $\frac{\sinh x}{\sin x}$ —	
J. M. Gandhi	185
The Derivatives of the Trigonometric Functions—M. J. Pascual	39
The Lucky Number Theorem—D. Hawkins and W. E. Briggs	81
The Midpoint Method of Numerical Integration—Preston C. Hammer	193
The Random Sieve—David Hawkins	1
You Can't Divide by Zero (cartoon)	92

Articles by Authors

Al-Salam, Waleed A., On a Characterization of Orthogonality	41
Amir-Moez, A. R., Principle of Induction and a Sequence of Generosities	back of contents, Jan.-Feb.
A Finite Sequence and a Card Trick	25
Bergman, George, A Number System With an Irrational Base	98
Brown, Arthur B., Linear Diophantine Equations	215
Cooke, K. L., A Symbolic Method for Finding Integrals of Linear Difference and Differential-Difference Equations	121
Draim, N. A., Test for Divisibility by the Use of a Remainder Function ...	137
Enser, Samuel S., Student Progress	154
Funkenbusch, W. W., A Correction and Generalization of Neustadt's Law ..	159
Gould, H. W., A Theorem Concerning the Bernstein Polynomials	259
Gandhi, J. M., The Coefficients of $\frac{\cosh x}{\cos x}$ and a Note on Carlitz's Coefficients of $\frac{\sinh x}{\sin x}$	185
Gans, David, Angle of Inclination and Curvature	31
Normal Curve Areas and Geometric Transformations	205
Greenspan, Donald, On Popular Methods and Extant Problems in the Solution of Polynomial Equations	239
Hammer, Preston C., The Midpoint Method of Numerical Integration	193
Harris, V. C., Solution of Triangles on the Slide Rule	95
Hawkins, D., The Random Sieve	1
and W. E. Briggs, The Lucky Number Theorem	81
Helpenstein, H. G., Critical Curves in Seismic Exploration	85
Holder, Doyne, Certain Non-factorable Polynomials	80
Ilyers, D. H. and J. A. Ferling, On the Local Uniqueness Problem for Periodic Surface Waves of Permanent Type in a Channel of Infinite Depth	61
Inagaki, Masaru, On the Polar Projection with Respect to Normal Curves ..	141
Jordain, Philip B., Comment on the paper "On a Certain Problem in Mechanics"	158
Kobayashi, Katsutaro, An Analogue to Clifford's Chain	133
Lariviere, R., A Special Case of a Prime Number Theorem	281
Law, Carol, Arithmetical Congruences with Practical Applications	221
Lloyd, Daniel B., Knocking a Cone Into a Cocked Hat	201
Mandam, Sahib Ram, Orthogonal Tetrahedron	127
McCulley, William S., Notes on Circular and Hyperbolic Functions	33
Morelock, J. C. and N. C. Perry, A Note Concerning Homogeneous Polynomials	75
Pascual, M. J., Solving Differential Equations Without Complex Numbers ..	93
The Derivatives of the Trigonometric Functions	39
Pennisi, Louis L., A Method for Finding the Real Roots of Cubic Equations by Using the Slide Rule	211

Perry, N. C. and J. C. Morelock, A Note on Computation with Approximate Numbers	155
Peyser, Gideon, Note on the Derivatives of the Legendre Polynomials ...	210
Regan, Francis and Charles Rust, On Natural Boundaries of a Generalized Lambert Series	45
Ringenberg, L. A., Numbers and Number Systems	265
Robbins, L. B., Comment on the paper "Long Short Lines"	158
Robinson, Donald W., n -Groups with Identity Elements	255
Robinson, Lewis Bayard, Calculation of a Complete System of Tensors with the Aid of Symbolic Multiplication.	5
Soble, A. B., Abstract Structure of Inequalities	179
Steinberg, Donald A., Combinatorial Derivations of Two Identities	207
Talacko, Joseph, Some Operational Methods in the Calculus of Finite Differences	15
Thomas, Paul D., Comment on the paper "Conic Sections"	157
Tierney, John A. and John Tyler, Multiple Numbers	27

Problems and Questions

Contributors

Numbers refer to pages. Bold type indicates a problem solved and solution published; Italics, a problem solved but solution not published; ordinary type, a problem proposed.

Al-Salam, W. A. 117, 165, 232, 233, 289	Court, N. A. 54
Anning, Norman 115, 164	Daniel, Edward 286
Bankoff, Leon 53, 113, 115, 170	Demir, Huseyin 54, 56, 57, 117, 228, 231, 232, 233, 236
Beiner, Felix 287	Dodes, Irving A. 169
Bergman, George 169, 230, 233, 287	Duggal, K. L. 164
Bissinger, Barney 51, 164, 236	Duncan, Dewey 56
Breault, D. A. 53, 113, 163, 165, 170, 171, 230, 234, 236, 285, 287, 288	Eves, Howard 53, 54, 55, 55
Brendan, T. 236, 287, 288	Flanders, Harley 114
Brown, J. L. (Jr.) 171	Gandhi, H. M. 56
Bruschman, R. G. 229	Gandhi, J. M. 51, 164, 173, 232, 232, 234, 286
Calabi, Eugenio 53	Gehman, Harry M. 169, 287, 288
Cappel, K. L. 56	Gold, Ben K. 51, 232, 233
Carlitz, L. 118, 165	Gopalan, M. N. 163, 164
Cartmell, David J. 53	Gregory, A. S. 173
Carver, Walter B. 163, 169, 230, 232, 233, 234	Heck, Grant 285
Chaffin, M. 287	Howell, J. M. 112, 291
Clawson, J. W. 54, 56, 287, 288, 293	Huntington, D. F. 229
Coffman, R. T. 53, 111, 287, 289	Johnson, Harold 171
Conkling, R. M. 293	Karst, Edgar 293
	Kearns, D. A. 229, 232
	Keeping, E. S. 113, 114

- Kiltie, R. B. 112, **292**
 Klankin, M. S. 118, 229
 Konhauser, J. D. E. 232, **233**, 234,
 235, 236, **288**,
 289, 290, 291,
 292, 293
 Kravitz, Sam 230, **287**
 Kravitz, Sidney 51, 230
 Krick, M. S. 111, 288
 Leifer, H. R. 169, 287
 Malmquist, Karl O. (Jr.) 170
 Means, James H. 285, 287
 Michalup, Erich 55, 112, 287, 293
 Morduchow, M. 232, 233, **235**, 288,
 290
 Moser, Leo 112, 113, 290
 McCawley, James (Jr.) 285
 McLean, Ray E. 289
 Ng, Wahin 55
 Ogilvy, C. S. 115
 Pal, B. K. R. 52, 53, 54, 55
 Painter, James A. 55
 Parker, F. D. 169, 171, 232, 233, 287
 Parrish, Gene B. 52, **52**, 113, 115
 Pascual, M. J. 230, 232, 233, 234,
 235, 236, 287, **288**,
 291
 Pembroke, M. 170
 Pepper, P. M. 164, 174
 Pinzka, Charles F. 287, **288**, 290
 Piza, P. A. 55, 286
 Pleijel, Arne 169, 232, 233, **236**
 Rajagopal, A. K. 51, 52, 54, 171,
 232, 233, 234, 236
 Ringenberg, L. A. 114, 164, 232,
 233, **235**, 287, 289,
 290
 Rogera, C. A. 168, 171
 Ruderman, H. D. 169, 231, 232, 233,
 234, 235
 Russell, William F. 233
 Schor, Harry 169
 Shafer, R. E. 228
 Smith, J. T. 288
 Starke, E. P. 169, 170, 231, **233**,
 235
 Steinberg, D. A. 111, 113
 Steinberg, Barbara 287
 Stephanie, Sister M. 53
 Thebault, Victor 170, 228
 Thomas, P. D. 51, 233, **233**, 287,
 288, 291
 Thoro, Dmitri 233, **235**
 Trigg, C. W. 112, 114, 115, 169,
 228, **229**, 231, 285,
 288, 289, 290
 Wagner, Robert J. 236
 Wang, Chih-yi 51, **52**, 53, 54, 55,
 113, 115, 116, 118,
 163, 169, 172, 172,
 231, 233, **233**, 234
 235, 236, 289, **292**
 Woods, Dale 171, 288, 289, 292
 Yarbrough, Billy E. 288

Solutions

The page on which a solution appears is in the parentheses following the number of the problem.

292(52), 293(53), 294(53), 296(54), 297(55), 298(56), 289(112), 299(113),
 300(113), 301(114), 302(115), 303(116), 304(117), 305(118), 306(164),
 307(165), 309(169), 310(170), 311(172), 312(178), 313(229), 314(230),
 315(232), 316(233), 317(233), 318(234), 319(235), 320(286), 321(288),
 322(289), 323(289), 324(290), 325(291), 326(292)

Quickies

204, 205, 206, 207, 208, 209, 210, (57); 211, 212, 213, 214, 215, (119); 216,
 217, 218, 219, (177); 220, 221, (236); 222, 223, (237); 224, 225, (294)

Trickies

32, 33, (294)